

IN THE CLAIMS

1. (Original) A combination of a microphone requiring a bias signal and an analog-to-digital converter having an input connected to an output of the microphone, to convert a signal generated by the microphone into a digital signal at an output of the analog-to-digital converter, characterized in that the analog-to-digital converter is operable to supply a bias signal to the microphone.
2. (Original) A combination as claimed in claim 1, characterized in that the analog-to-digital converter is a sigma-delta converter comprising a loop filter, a sampler, a first feed-back circuit for AC signals, including a first digital-to-analog converter, and a second feedback circuit for DC signals, including a second digital-to-analog converter, the bias signal for the microphone being derived from the second feed-back circuit, and the first and second feedback circuit both being coupled to an input of the loop filter.
3. (Currently amended) A combination as claimed in claim 2, characterized in that the second feed-back circuit includes a low pass filter having a cut-off frequency lower than [the] a lowest signal frequency of the analog-to-digital converter.
4. (Currently amended) A combination as claimed in claim 2, characterized in that [the] a gain of the second feed-back loop, which comprises the loop filter, the sampler and the second feed-back circuit, is several orders of magnitude higher than unity.
5. (Original) A combination as claimed in claim 3, characterized in that the low pass filter is a digital filter and is included in the second feed-back circuit before the second digital-to-analog converter.
6. (Original) A combination as claimed in claim 5, characterized in that the first and the second feed-back circuit are combined to a united feed-back circuit including a single digital-to-analog converter, having an input connected to a low-pass filter, and a bypass circuit which bypasses the low-pass filter.

C

7. (Currently amended) A combination as claimed in claim 2, [characterized in that the first integrator comprises] comprising a bridge circuit, whose branches include current sources, which bridge circuit has a first pair of opposite junctions is connected to a power supply, and has a second pair of opposite junctions [is] connected to one another by a capacitor and the microphone, the junctions of said second pair each being connected to the inputs of the sampler circuit, and a pair of opposite current sources being controlled by the output signal of the feedback circuit.

8. (Original) A combination as claimed in claim 7, characterized in that the integrator comprises a common mode amplifier having an output for driving control inputs of controllable current sources connected between the inputs of the sampler circuit and one of the power supply lines.